REMARKS

Claims 1-3 are pending in the application. In the Final Office Action of November 18, 2003, the Examiner made the following disposition:

A.) Rejected claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure 4* in view of *Yamashita et al.*

B.) Rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure 4* in view of *Yamashita et al.*, and further in view of *Haga et al.*

Applicant respectfully traverses the rejections and addresses the Examiner's disposition as follows:

A.) Rejected claims 1 and 2 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure* 4 in view of *Yamashita et al.*

Applicant respectfully disagrees with the rejection.

Applicant's independent claim 1 has been amended to more clearly claim that the second metal made shield film is not disposed above the light receiving portion of the solid-state imaging device.

Claim 1, as amended, claims a solid-state imaging device having an output portion connected to an output end of a horizontal transfer register, the output portion having a gate structure including an oxide film and a nitride film. Upper layer films allow ultraviolet rays having a wavelength of 400 nm or less to pass therethrough. A first metal made shield film covers a region of the gate structure including the oxide film and the nitride film. The first metal made shield film is disposed above a light receiving portion and a transfer portion of the solid-state imaging device. A second metal made shield film covers a region of the gate structure including the oxide film and the nitride film. The second metal made shield film entirely shields at least one of an output gate and a reset gate in the output portion of said solid-state imaging device. The second metal made shield film is not disposed above the light receiving portion.

As described in Applicant's specification, the claims second metal made shield film prevents an ultraviolet light from shifting the threshold voltage of devices in the output portion of the solid-state imaging device.

This is clearly unlike *Applicant's Figure 4* in view of *Yamashita*, neither of which teaches a shield film in an output portion. As acknowledged by the Examiner, *Applicant's Figure 4* fails to teach a second metal made shield film. Instead, *Applicant's Figure 4* discloses a single first metal shield 155 formed in a horizontal transfer portion (which is not an output portion). Further,

Applicant respectfully submits that *Yamashita* still fails to disclose or suggest Applicant's claimed second metal made shield film.

Referring to *Yamashita* Figures 21 and 22, *Yamashita* discloses an imaging area (light receiving portion) having photodiodes 256. Vertical transfer regions are located between the photodiodes 256. A second light-shielding film 272 is located between the photodiodes 256 in the vertical transfer region. Thus, unlike Applicant's claim 1 that claims a second metal made shield film formed to cover elements in an output portion and not disposed in a light receiving portion, *Yamashita's* second light-shielding film 272 is disposed in a light receiving portion and not formed in an output portion.

The Examiner argues that it would have been obvious to combine *Applicant's Figure 4* with *Yamashita*, because *Yamashita* states that its metal shield 272 enhances image sense performance. Although *Yamashita's* metal shield 272 enhances image sense performance in its light receiving portion, Applicant submits that that is unrelated to providing a metal shield in an output portion. Unlike claim 1, neither *Applicant's Figure 4* nor *Yamashita* teaches a second metal shield in an output region and not in a light receiving portion. Unlike Applicant's claim 1, neither of the cited references, taken singly or in combination, teaches preventing a shift in threshold voltage in output devices in an output portion.

Therefore, for at least these reasons, *Applicant's Figure 4* in view of *Yamashita* fails to disclose or suggest Applicant's claim 1.

Claim 2 depends directly from claim 1 and is therefore allowable for at least the same reasons that claim 1 is allowable.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

B.) Rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over *Applicant's Figure 4* in view of *Yamashita et al.*, and further in view of *Haga et al.*

Applicant respectfully disagrees with the rejection.

Applicant's claim 3, as amended, claims a solid-state imaging device having an output portion connected to an output end of a horizontal transfer register. The output portion has a gate structure including an oxide film and a nitride film. Upper layer films allow ultraviolet rays having a wavelength of 400 nm or less to pass therethrough. An organic film is capable of absorbing the ultraviolet rays. The organic film covers a region of the gate structure including the oxide film and the nitride film. The organic film entirely shields at least one of an output gate

and a reset gate in the output portion of said solid-state imaging device. The organic film is not disposed above a light receiving portion of the solid-state imaging device.

This is clearly unlike *Applicant's Figure 4* in view of *Yamashita,* and further in view of *Haga*. As discussed above with respect to Applicant's claim 1, *Applicant's Figure 4* in view of *Yamashita* fails to disclose or suggest a shield formed in an output portion and not in a light receiving portion. As stated above, *Applicant's Figure 4* fails to disclose a shield in an output portion, and *Yamashita* merely discloses a shield in an imaging portion but not an output portion.

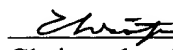
Haga still fails to disclose or suggest a shield formed in an output portion, and not a light receiving portion, that covers a gate structure including an oxide film and a nitride film. Therefore, *Applicant's Figure 4* in view of *Yamashita*, and further in view of *Haga*, fails to disclose or suggest Applicant's claim 3.

Applicant respectfully submits the rejection has been overcome and requests that it be withdrawn.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-3 are patentable. It is therefore submitted that the application is in condition for allowance. Notice to that effect is respectfully requested.

Respectfully submitted,

 (Reg. No. 45,034)

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